

SEQUENCE LISTING

<110> Kosan Biosciences, Inc.
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Peck, Larry
Dayem, Linda
Kealey, James

<120> ISOLATED GENE FOR METHYLMALONYL COA EPIMERASE AND USES THEREOF

<130> 30062-20049.10

<140> To be Assigned
<141> Herewith

<150> US 09/699,136
<151> 2000-10-27

<150> US 60/161,414
<151> 1999-10-25

<150> US 60/161,703
<151> 1999-10-27

<150> US 60/206,082
<151> 2000-05-18

<160> 2

<170> FastSEQ for Windows Version 4.0

<210> 1
<211> 447
<212> DNA
<213> Artificial Sequence

<220>
<223> Isolated and recombinant form of the full
epimerase gene sequence

<221> CDS

<222> (1)...(444)

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Met Ser Asn Glu Asp Leu Phe Ile Cys Ile Asp His Val Ala Tyr Ala
1 5 10 15

tgc ccc gac gcc gac gag gct tcc aag tac tac cag gag acc ttc ggc 96
Cys Pro Asp Ala Asp Glu Ala Ser Lys Tyr Tyr Gln Glu Thr Phe Gly
20 25 30

tgg cat gag ctc cac cgc gag gag aac ccg gag cag gga gtc gtc gag 144
Trp His Glu Leu His Arg Glu Glu Asn Pro Glu Gln Gly Val Val Glu
35 40 45

atc atg atg gcc ccg gct gcg aag ctg acc gag cac atg acc cag gtt Ile Met Met Ala Pro Ala Ala Lys Leu Thr Glu His Met Thr Gln Val	192
50 55 60	
cag gtc atg gcc ccg ctc aac gac gag tcg acc gtt gcc aag tgg ctt Gln Val Met Ala Pro Leu Asn Asp Glu Ser Thr Val Ala Lys Trp Leu	240
65 70 75 80	
gcc aag cac aat ggt cgc gcc gga ctg cac cac atg gca tgg cgt gtc Ala Lys His Asn Gly Arg Ala Gly Leu His His Met Ala Trp Arg Val	288
85 90 95	
gat gac atc gac gcc gtc agc gcc acc ctg cgc gag cgc ggc gtg cag Asp Asp Ile Asp Ala Val Ser Ala Thr Leu Arg Glu Arg Gly Val Gln	336
100 105 110	
ctg ctg tat gac gag ccc aag ctc ggc acc ggc ggc aac cgc atc aac Leu Leu Tyr Asp Glu Pro Lys Leu Gly Thr Gly Gly Asn Arg Ile Asn	384
115 120 125	
tac ccg aag aac tga Tyr Pro Lys Asn	447
145	
<210> 2	
<211> 148	
<212> PRT	
<213> Artificial Sequence	
<220>	
<223> Deduced amino acid sequence of the epimerase gene	
sequence	
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Met Ser Asn Glu Asp Leu Phe Ile Cys Ile Asp His Val Ala Tyr Ala	
1 5 10 15	
Cys Pro Asp Ala Asp Glu Ala Ser Lys Tyr Tyr Gln Glu Thr Phe Gly	
20 25 30	
Trp His Glu Leu His Arg Glu Glu Asn Pro Glu Gln Gly Val Val Glu	
35 40 45	
Ile Met Met Ala Pro Ala Ala Lys Leu Thr Glu His Met Thr Gln Val	
50 55 60	
Gln Val Met Ala Pro Leu Asn Asp Glu Ser Thr Val Ala Lys Trp Leu	
65 70 75 80	
Ala Lys His Asn Gly Arg Ala Gly Leu His His Met Ala Trp Arg Val	
85 90 95	
Asp Asp Ile Asp Ala Val Ser Ala Thr Leu Arg Glu Arg Gly Val Gln	
100 105 110	
Leu Leu Tyr Asp Glu Pro Lys Leu Gly Thr Gly Gly Asn Arg Ile Asn	
115 120 125	
Phe Met His Pro Lys Ser Gly Lys Gly Val Leu Ile Glu Leu Thr Gln	

130

Tyr Pro Lys Asn
145

135

140